

00331 RF 94

States Government

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Department of Energy

DUE
DATE 2-14-94

Memorandum

Jan 25 9 01 AM '94 Rocky Flats Office

ACTION *Stiger*
DIST. TR ENC

BENEDETTI R L	
BENJAMIN A	
BERMAN H S	
CARNIVAL G J	
COPP R D	
CORDOVA R C	
DAVIS J G	
FERRERA D W	
FRANZ W A	
HANNI B J	
HEALY T J	
HEDAHL T G	
HILBIG J G	
HUTCHINS N M	
KIRBY W A	
KUESTER A W	
MAHAFFEY J W	
MANN H P	
MARX G E	XX
McKENNA F G	
MORGAN R V	
PIZZUTO V M	
POTTER G L	
SANDLIN N B	
SATTERWHITE D G	
SCHUBERT A L	
SETLOCK G H	
SULLIVAN M T	
SWANSON E R	
WILKINSON R B	
WILSON J M	

JAN 21 1994

ER VW 00802

October 1993 Health and Safety Plan for Operable Unit No 2 - Demonstration,
Testing and Evaluation of Non-Intrusive Characterization Technologies

Sue Stiger, Associate General Manager
Environmental Restoration Management
EG&G Rocky Flats, Inc

Please find attached the DOE/RFO comments on the October 1993 Health and Safety Plan
for Operable Unit No 2 - Demonstration, Testing and Evaluation of Non-Intrusive
Characterization Technologies

We request that EG&G review the attached comments and modify the Health and Safety
Plan to insure that those activities described in the Plan are conducted safely in accordance
with OSHA and DOE Orders. We also request that EG&G provide DOE/RFO with a
revised Health and Safety Plan and written responses to the comments by
February 14, 1994

We apologize for the tardiness of the attached comments and we recognize that the
additional work resulting from these requests may not have been included in the current
budget. However, in the interest of conducting our work in a safe manner, we believe that
the Health and Safety Plan needs to be modified to reflect the attached comments

We believe this request falls within current work package scope. If you find otherwise,
please notify me and indicate the appropriate Change Control Board action

Questions or concerns should be directed to Vern Witherill of my staff at extension 2003

CORRES CONTROL	x	x
PATS/T130G	XX	
ADRN RECORD/080	X	2

Reviewed for Addressee
Corres Control RFP

1-25-94 *Cu*
DATE BY

Ref Ltr #

DOE ORDER # 5400 1

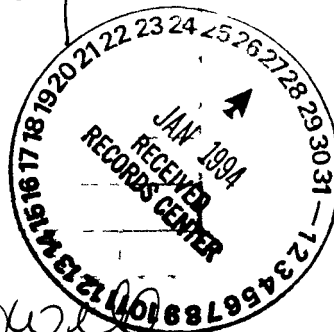
Vern F Witherill

Vern F Witherill
Group Leader, Environmental
Restoration Facilities and Decontamination
and Decommissioning

Stiger

Bushy

Attachment



JAN 1994
RECEIVED

Holloway

RECORD

TECHNICAL COMMENTS

- #1 P 4-1, last paragraph, first sentence
P 4-3, first paragraph, second sentence

I'm not sure the math is correct on the amount of remaining (^{239}Pu) Curies
Page 4-1 indicates that 86 grams may remain from contaminated liquids in soils
The specific activity of ^{239}Pu is $6.13 \times 10^{-2} \text{ Ci/g}$ (Radiological Health Handbook, Dept of HEW, 1970, p 104) which calculates to 5.3 Curies rather than the 1.7 Curies mentioned on page 4-3

- #2 P 3-1, last sentence
P 5-1, Section 5.1, last sentence
vs
P 11-2, first sentence
Section 10.3, second and fourth bullet

An inadvertent ambiguity creeps into this HASP on the issue of entry/work in the IHSSs. Pages 3-1 and 5-1 are explicit in excluding the IHSSs from the Scope of Work and Hazard Assessment because they will not be entered. Then Sections 10.3 and 11.2 suggest PPE and decontamination procedures "if" there is entry into the IHSSs. By hedging our no-entry statements with a few "ifs" and prescribing hopeful half-measures, we may be setting up an environment where it is assumed that IHSS entry has been considered and fully provided for. A worst case abuse of this could lead to contaminated personnel/equipment.

I do recognize that anticipating every field circumstance is impossible, however, I suggest this be settled more definitively. We can anticipate in this HASP (and site training) that an IHSS entry is not planned but may be necessary, or, we can flatly prohibit IHSS entry. Is it likely that some access to or through an IHSS will be necessary for the cables on the geophones? If the answer is yes then some provision for radiological survey/decontamination must be provided for.

If the work can be performed with no IHSS entry, I would recommend this be made clear in the site briefing and whenever appropriate in the HASP.

- #3 Table 5.1-4
Potential hazards and PPE for decontamination of equipment should be considered and provided for in this table

- #4 P 6-1, second paragraph, first and second sentences
While there is nothing technically wrong with the statements regarding "repeating tests" and "requesting new tests" when an abnormal reading is reported, the retest decision should not be prescribed but should be entirely deferred to the examining physician. Reading this literally, if an employee received an abnormal reading on a second test, then a third test is required under this program and, conceivably, would continue with retesting until a normal reading was reported.

Disqualifying a person from field work whenever a "potential problem" is indicated will eventually tangle you up with the new American Disabilities Act. The medical condition must be one that has an impact on the person's capacity to work safely without impairment to the person's health and safety. For example, if an individual performed poorly on a forced vital capacity test but would not be expected to wear a respirator, disqualifying them from the site when respirators were not necessary could be illegal.

Medical examination results must be made available to the employee whether he/she makes a written request or not (29 CFR 1910.120 (f) (7) (i))

The HASP should mention the types of medical examinations that will be made available to the employees: initial, annual, termination and incident-related

#5 Section 7.2.1

Delete the word "possible" since real time radiation monitoring equipment is required in several other sections

#6 Section 7.2.2

Describe what the FIDLER, G-M, Model 3, etc. detects and its response range. Any equipment used for monitoring must have its "methods of maintenance and calibration" included (or referenced and kept on site) as a part of the HASP (29 CFR 1910.120 (b) (4) (ii) (E))

The last several sentences of page 7-1 left me wondering whether radiological screening of EBASCO people by EBASCO people was (1) required sometimes, or (2) optional, and not more than a gratuitous recommendation for the benefit of EBASCO employee's peace of mind. If it is the latter case, then it is an inadequate situation to blow off this surveillance just because "RFP coverage is not available or present."

The second paragraph (of page 7-1) requiring the FIDLER pre-screen should reference a SOP on this procedure. There is ambiguity in this section about who conducts the pre-screen and what is the "area prior to entry." Is it the "work zone" described in Section 9.1? Is it only applicable to an IHSS? How are background levels determined? What is a "negative" result on a FIDLER? Are there any field conditions in regard to wet soil or snow cover that must be considered?

Does the first sentence of page 7-2 refer to the pre-screen only, ("detection of any cpm greater than background"), or does it include any subsequent detections made in a work area? Is the sentence meant to be prescriptive (i.e., substituting "will be" for "are") and is the survey to be conducted "prior" to departure? Also the term "suspect area" is introduced and it should be made clear what monitoring/information will determine that an area is a "suspect area."

If frisking is performed on an individual after he/she has removed protective clothing (cloth coveralls, for example) how do we know that the protective clothing itself is not radiologically contaminated? Would it make more sense to frisk the individual before removing the worksuit? In the event it was hot, it would be detected and removed before the contamination spread during the act of removing the protective clothing.

The second paragraph of page 7-2 is unclear as to whether this resurvey technique applies to personnel, equipment, or the work zone. Is the alpha scintillator to be used only if the Model 3 reads 100+ cpm above background? Is it possible that alpha contamination may be missed if only a Model 3 G-M survey was performed? The last sentence with its prescription for action when "readings that are greater than the following" should refer to a table or something

less general than "following" The phone number of EG&G Radiation Monitoring is not in the list of phone numbers in Section 1.2, is it the same as EG&G Radiological Contract?

The third paragraph of page 7-2 is unclear in several respects. Are EBASCO personnel excused from surveying tools and equipment if the HSO does not direct them to do it? The prescription for a survey "when there is doubt about the condition of the equipment" is vague. Since the spikes on geophones will penetrate the surface where the prescreen survey would not detect alpha contamination, would these always be surveyed, (for example) since we know plutonium is present and its attachment to soil on the spike is a possibility?

Can anyone request/insist on a survey? Will RFP always require and perform a survey so that the EBASCO survey is actually a confirmation (hence the "also" in the first sentence)?

The last two sentences of paragraph 3, and the first line of the last paragraph on page 7-2 refer to "foregoing limits" and "limits" but it is unclear what these are. The untitled table on page 7-3 refers to *action* limits but is not clear that these are what previous discussion of "limits" refers to, or what these limits encompass (prescreen of the work site? human skin? tools?), or what the "action" is meant to be (call EG&G Radiation Monitoring?)

- #6 P 8-2, Section 8.4
Whether or not you include it as a prescriptive part of this section or not, I would be most gratified if the Site-Specific Training included the following topics
 - identity of each First Aid and CPR trained worker at the site
 - no-entry provision for the IHSSs
 - use and limitations of monitoring equipment
- #7 P 8-3, Section 8.6, second sentence
Apparently First Aid training is not required, but, in a hopeful way it is "expected that a selected number" will have this training. What if this expectation is not met? How many is a "selected number" or even "several"? A requirement for compliance with the Bloodborne Pathogen Standard should be mentioned here.
- #8 P 9-1, Section 9.0
Will the zones be demarcated?
- #9 P 10-2
Require that the following items be available for immediate use in the work zone
 - First Aid kit
 - Fire extinguisher
 - phone/radio
 - eyewash
- #10 P 11-1, second bullet under Heavy Equipment
Replace "should" with "will"
- #11 P 11-1, last bullet
Describe these dust control measures and the circumstances when they will be deployed

EDITING COMMENTS

- #1 P vii
"counts per minute" for "Counts per minute"
FIDLER is "field instrument for detection of low-energy radiation"
"pCi/g" for "pCI/g"
- #2 P 2-3, bullet 4
"systems" for "stems"
- #3 P 7-3, first paragraph
Ungrammatical sentence construction